

ABSTRACT

The wiper driving apparatus module includes: a motor 12 for driving a wiper unit; a wiper ECU 11 for driving the
5 motor 12; a deceleration mechanism (including gears). The two brush DC motor is employed and driven by a pulse width modulation (PWM) signal, in place of the conventional three brush motor wherein brushes are changed in accordance with a wiper operation speed.
10 Therefore, the number of windings is only a number required for a high speed operation of the wiper unit. The high speed operation is implemented by 100 % duty PWM signal, while the low speed operation is implemented by reducing the duty. The PWM signal duty is changed in
15 response to a rainfall, windshield surface state and wind pressure which cause the wiping speed fluctuation.